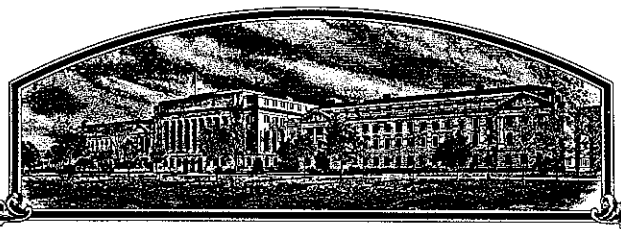
No. 8200157



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Nickerson American Plant Breeders, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT ETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'Teton'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 28th *day of* February *in the year of our Lord one thousand nine hundred and* eighty-six.

Attest:

Kenneth R. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Acting Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
NAPB 9 or 6B76-181A	Teton	PV NUMBER 8200157
2. KIND NAME: Barley	3. GENUS AND SPECIES NAME: Hordeum vulgare L.	FILING DATE 8/23/82 / TIME ~~XXX~~ 2:30 P.M.
4. FAMILY NAME (BOTANICAL): Gramineae	5. DATE OF DETERMINATION: 1.) March 1976 2.) November 1979	FEE RECEIVED $ 500.00 $ ____ / DATE 8/23/82

6. NAME OF APPLICANT(S)	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)	8. TELEPHONE AREA CODE AND NUMBER
NICKERSON ~~North~~ American Plant Breeders, Inc.	5201 Johnson Dr. Mission, KS 66205	913-384-4940 (KS) 303-532-3721 (CO)

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Partnership	Stamford, Conn.	March 9, 1973

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:

~~Giles Dixon~~ R.E. HEINER
NAPB, P.O. Box 2955
Mission, KS 66201

~~R. E. Heiner or~~ C. Bruns
P.O. Box 30
Berthoud, CO 80513

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?
[X] YES [ ] NO	[X] FOUNDATION [X] REGISTERED [X] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. ~~DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [ ] YES [ ] NO~~

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

19 July 1982
(DATE)

Robert E Heiner
(SIGNATURE OF APPLICANT)

8-9-1982
(DATE)

D J Nickerson
(SIGNATURE OF APPLICANT)

FORM GR-470 (1-78)

1

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Exhibit A.

Origin and breeding history of Teton (6B76-181A; NAPB-9; Teton)

Pedigree: Steptoe/63Ab 2987

Date of Cross: The cross was made in the fall 1973 greenhouse; the F1 was grown in the spring 1974 greenhouse to produce F2 seed. 63Ab 2987 was a bulk of 120 lines from the cross Traill/CI 7147//Traill and was from the U.S.D.A. barley breeding program at Aberdeen, Idaho. CI 7147 is from the cross Delta/Everest.

History: F2 plants were grown at Great Falls, Montana; Berthoud, Colorado; and Lethbridge, Alberta, Canada (dryland) in 1974. Single plant selections were advanced to F3 plots and grown at Great Falls, Montana in 1975. The F4 bulk was yield tested in 1976 at Berthoud, Colorado and five single plants were selected for winter increase as F5 plant selections in Christchurch, New Zealand during the 1976-77 off-season. In 1977 the original seed tracing to the F4 bulk was yield tested as an F5 bulk at Berthoud, Colorado; Great Falls, Montana; and Twin Falls, Idaho. In addition, the five subfamilies tracing to single plant F5 selections were yield tested as F6 bulks in Berthoud, Colorado. From the five lines, subfamily A was chosen to continue with and the line designation of 6B76-181A was used. This line served as the pure seed and yield trial source in 1978. This line has been tested by NAPB in Berthoud, Colorado from 1978 to 1982. It was also tested in Twin Falls and Nampa, Idaho trials in 1979 and 1980, respectively. 6B76-181A was entered as NAPB-9 in Intermountain barley testing programs in 1980. NAPB-9 has been tested in Colorado, Wyoming, Montana, Idaho, Washington, and Oregon. It is also currently (1982) being tested in the six-rowed Canadian Co-op Trials.

Purification was initiated in 1977. Two hundred plants were selected from 6B76-181A (subfamily A). These were grown at our Berthoud, Colorado location and 32 rows were discarded. A head-row from each of the remaining 168 plant selections was grown in Yuma, Arizona during the 1978-79 winter season. Several head-rows were discarded at the Yuma, Arizona nursery and a head-row from each row was grown at Berthoud, Colorado in 1979. The seed produced in 1978 and 1979 was bulked and planted in Yuma, Arizona to produce the original breeder seed.

Two hundred ninety-two head-rows from this breeder seed were also grown in 1980 to constitute breeder seed, and future head-rows will be grown as necessary to produce breeder seed. Breeder and Foundation seed fields were stable and uniform in 1982. It may be noted that throughout the production stages of this variety, a .6% blue aleurone color has been recorded. This trait is to be expected in subsequent generations.

Exhibit B

Novelty Statement

Teton is most similar to the spring barley variety Steptoe, however it can be distinguished by the following morphological characteristics:

- Teton's leaves are slightly waxey. Steptoe's leaves are non-waxey. (NAPB Inc. morphological data).

- Teton has few teeth or barbs on the lateral and marginal nerves. Steptoe has numerous teeth/barbs on the lateral nerves.

- Teton's rachis is covered with hairs. Steptoe has few hairs on the edge of its rachis. (Exhibit C; Washington State Exp. Station, 1973).

- Teton's glume awns are less than equal to the length of the glume. Steptoe's glume awns equal 1/2 the length of the glume. (NAPB Inc. morphological data).

- Teton's flag leaf makes a 90 degree angle from the stem at boot stage. Steptoe's flag leaf is recurved at boot stage. (NAPB Inc. morphological data).

FORM GR-470-5
(11-1-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED. OMB NO. 40-R3712

EXHIBIT C
(Barley)

OBJECTIVE DESCRIPTION OF VARIETY

BARLEY *(HORDEUM VULGARE)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
North American Plant Breeders

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
5201 Johnson Dr.
Mission, KS 66205

FOR OFFICIAL USE ONLY
PVPO NUMBER 8200157
VARIETY NAME OR TEMPORARY DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (i.e. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. GROWTH HABIT:

[1] 1 = SPRING 2 = FACULTATIVE WINTER 3 = WINTER [2] Early Growth: 1 = PROSTRATE 2 = SEMIPROSTRATE 3 = ERECT

2. MATURITY (50% Flowering):

[2] 1 = EARLY (California Mariout) 2 = MIDSEASON (Betzes) 3 = LATE (Frontier)

[4] No. of days *Earlier* than . . . . . [1]
[ ] No. of days *Later* than . . . . . [ ]
1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON 5 = PIROLINE 6 = PRIMUS 7 = UNITAN

3, PLANT HEIGHT (From soil level to top of head):

[3] 1 = SEMIDWARF 2 = SHORT (California Mariout) 3 = MEDIUM TALL (Betzes) 4 = TALL (Conquest)

[ ][ ] Cm. *Shorter* than . . . . . [ ]
[ ][ ] Cm. *Taller* than . . . . . [ ]
1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON 5 = PIROLINE 6 = PRIMUS 7 = UNITAN

4. STEM:

[1] Exertion *(Flag to spike at maturity):* 1 = 0 - 3 cm. 2 = 3 - 10 cm. 3 = 10 - 15 cm.
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT

[0][4] NO. OF NODES (Originating from node above ground)

[2] Collar Shape: 1 = CLOSED 2 = V-SHAPED 3 = OPEN 4 = MODIFIED CLOSED OR OPEN
[3] Shape of Neck: 1 = STRAIGHT 2 = SNAKY 3 = OTHER (Specify) curved

5. LEAF:

[1] Basal leaf sheath *(seedling):* 1 = GLABROUS 2 = PUBESCENT
[3] Position of flag leaf *(at boot stage):* 1 = DROOPING 2 = UPRIGHT 3=90° Angle from Stem
[2] Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY
[1][7] MM. WIDTH (First leaf below flag leaf)
[2][4] CM. LENGTH (First leaf below flag leaf)
[2] Anthocyanin in leaf sheath: 1 = ABSENT 2 = PRESENT(slight)

6. HEAD:

[2] Type: 1 = TWO-ROWED 2 = SIX-ROWED
[1] Density: 1 = LAX 2 = ERECT (Not dense) 3 = ERECT (Dense)
[2] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) parallel sides
[2] Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY
[2] Lateral Kernels Overlap: 1 = NONE 2 = AT TIP 3 = 1/4 - 1/2 OF HEAD
[3] Rachis *(Hair on edge):* 1 = LACKING 2 = FEW 3 = COVERED

7. GLUME:

[3] Length: 1 = 1/3 OF LEMMA 2 = 1/2 OF LEMMA 3 = MORE THAN 1/2 OF LEMMA
[3] Hairs: 1 = NONE 2 = SHORT 3 = LONG
[4] Hair covering: 1 = NONE 2 = RESTRICTED TO MIDDLE 3 = CONFINED TO BAND 4 = COMPLETELY COVERED
[1] Awns: 1 = LESS THAN EQUAL TO LENGTH OF GLUMES 2 = EQUAL TO LENGTH OF GLUMES 3 = MORE THAN EQUAL TO LENGTH OF GLUMES
[3] Awn Surface: 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

FORM GR-470-5 (Reverse) 8200157

8. LEMMA:

[5] Awn: 1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS, AWNLESS ON LATERAL ROWS
3 = SHORT ON CENTRAL ROWS, AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike)
5 = LONG (longer than spike) 6 = HOODED

[3] Awn Surface: 0 = AWNLESS 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

[2] Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS
on lateral & marginal nerves

[1] Hair: 1 = ABSENT 2 = PRESENT

[3] Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE 3 = TRANSVERSE CREASE

[2] Rachilla Hairs: 1 = SHORT 2 = LONG

9. STIGMA:

[2] Hairs: 1 = FEW 2 = MANY

10. SEED:

[2] Type: 1 = NAKED 2 = COVERED

[1] Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT

[4] Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.)
4 = MIDLONG TO LONG (9.0 - 10.5 mm.) 5 = LONG (10.0 mm.)

[2] Wrinkling of hull: 1 = NAKED 2 = SLIGHTLY WRINKLED 3 = SEMIWRINKLED 4 = WRINKLED

[1] Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE
with .6% Blue aleurone mixture

[0][0] PERCENT ABORTIVE none found

[4][3] GMS. PER 1000 SEEDS

11. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SEPTORIA	[0] NET BLOTCH	[0] SPOT BLOTCH	[0] POWDERY MILDEW
[1] LOOSE SMUT	[0] BACTERIAL BLIGHT	[1] COVERED SMUT	[0] FALSE LOOSE SMUT
[0] STEM RUST	[0] LEAF RUST	[0] SCAB	[2] SCALD
[0] AY	[0] BSMV	[0] BYDV	[1] OTHER (Specify) Helminthosporium Stripe

12. INSECT: (0 = Not tested, 1 = Susceptible 2 = Resistant)
These insects not economic problems in area of adaptation

[0] GREEN BUG	[0] ENGLISH GRAIN APHID	[0] CHINCH BUG	[0] ARMYWORM
[0] GRASS HOPPERS	[0] CERIAL LEAF BETTLE	[0] OTHER (Specify)	

HESSIAN FLY RACES: [0] GP [0] A [0] B [0] C [0] D [0] E [0] F [0] G

13. CHEMICAL (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] DDT [0] OTHER (Specify)

14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Steptoe	Seed size	Steptoe
Leaf size	Steptoe	Coleoptile elongation	Steptoe
Leaf color	Steptoe	Seedling pigmentation	Steptoe
Leaf carriage	Steptoe		

REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.
3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

Exhibit D

Botanical Description

Teton is a mid-tall, six rowed spring barley. It is midseason in maturity with non-malting or feed type quality.

It has a semiprostrate juvenile growth habit. The spike is lax, midlong to long with spreading, rough awns and long haired, covered rachis edges. Glume hair covering is long and covered, (some glumes display a thick band appearance). The glume awns are rough and less than equal to the glume length. Kernels exhibit white aleurone with a .6% blue aleurone mixture, and slightly wrinkled hulls. The lemma base shape is a transverse crease with few teeth on the lateral and marginal veins. Teton has been bred and developed by North American Plant Breeders.

8200157

Teton

List of Tables

NAPB 1978-1981 Agronomic Data Summary
MSU 1980-1981 Agronomic Data Summary
Chemical Analysis and Viscosity Data

8200157

North American Plant Breeders
1978-1981 Agronomic Data Summary

	Yield Bu/A(9) [1]	Heading Date(7) [1]	Height cm(8) [1]	Lodging Score(6) [1]	Head Erectness(4) [1]
Teton	80.3	171.7	78.2	3.4	2.2
Steptoe	77.3	171.6	75.8	3.8	1.9
Karl	69.9	172.6	72.4	3.6	4.5

[1] number of station-years

8200157

Montana State University
1980-1981 Agronomic Data Summary

	Yield Bu/A(18) [1]	Test wt lbs/bu(18) [1]	Heading Date(14) [1]	Height in(17) [1]	Lodging %(5) [1]	% Plump(8) [1]
Teton	90.5	46.6	171.7	32.6	3.4	80.2
Steptoe	85.6	45.5	171.5	31.5	3.4	79.6

1 number of station-years

8200157

Montana State University
Chemical Analysis and Viscosity Data

Analyses	Lud	Steptoe	Teton
Dry Matter (%)	93.2	94.0	94.1
Protein (%)	10.2	10.0	11.0
Crude Fiber (%)	3.3	5.0	3.4
Ether Extract (%)	1.8	1.7	1.8
Ash (%)	2.5	2.6	2.5
NDF[a] (%)	13.4	18.0	14.0
ADF[a] (%)	5.1	8.0	6.6
Viscosity[a] (CP)	2.43	2.43	2.03
Calcium (%)	.02	.02	.01
Phosphorous (%)	.38	.32	.41
In Vitro DMD[a] (%)	82.8	79.3	81.8

[a] NDF = Neutral detergent fiber
ADF = Acid detergent fiber
CP = Centipoise (relative viscosity)
DMD = Dry Matter Digestibility

BILL OF SALE AND ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS that AGRIPRO BIOSCIENCES INC., a Delaware corporation (hereinafter referred to as "Seller"), pursuant to that certain Asset Purchase Agreement of even date herewith by and between Seller and AGR ACQUISITION CORPORATION, a Delaware corporation (hereinafter referred to as "Buyer") and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant, bargain, sell, assign, convey and deliver unto Buyer, all of Seller's right, title and interest in and to the plant varieties owned/registered by Seller and more particularly set forth on Exhibit A attached hereto for which PVP Certificates have been issued by or may be pending before the U. S. Department of Agriculture.

TO HAVE AND TO HOLD UNTO PURCHASER, its successors and assigns forever.

IN WITNESS WHEREOF, Seller has executed this Bill of Sale and Assignment as of the 30th day of June, 1994.

AGRIPRO BIOSCIENCES INC.

BY: W. A. Zama

Title: Pres. dent

STATE OF KANSAS, COUNTY OF JOHNSON

Before me, the undersigned, a Notary Public of the State and County aforesaid, personally appeared W. A. ZAMA with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence) and who, upon oath, acknowledged himself to be the PRESIDENT of Agripro Biosciences Inc., the within named bargainor, a corporation, and that he as such PRESIDENT, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself as PRESIDENT.

WITNESS my hand and Notarial Seal at office the day and year above written.

Alma M. Weaver
Notary Public

My Commission Expires:

June 22, 1998

ALMA M. WEAVER
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. June 22, 1998

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
AGR ACQUISITION CORPORATION

AGR Acquisition Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

FIRST: that the Board of Directors of said corporation, by the unanimous written consent of its members filed with the minutes of the Board, adopted a resolution proposing and declaring advisable the following amendment to the Certificate of Incorporation of said corporation:

RESOLVED, that the Certificate of Incorporation of this corporation be amended by changing the Article thereof numbered "ARTICLE I" so that, as amended, said Article shall be and read as follows:

"ARTICLE I

Name

The name of the corporation (hereinafter called the 'Corporation') is Agripro Seeds, Inc."

SECOND: That in lieu of a meeting and vote of stockholders, the sole shareholder of the corporation has given unanimous written consent to said amendment in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

THIRD: That the aforesaid amendment was duly adopted in accordance with the applicable provisions of Sections 242 and 228 of the General Corporation Law of the State of Delaware.

FOURTH: That the capital of said corporation shall not be reduced under or by reason of said amendment.

IN WITNESS WHEREOF, said AGR Acquisition Corporation has caused this certificate to be signed by Gary T. Hancock, its President, and attested by Ann Steelman, its Secretary, this 30th day of June, 1994.

AGR ACQUISITION CORPORATION

BY: Gary T. Hancock
Gary T. Hancock, President

ATTEST:

BY: Ann Steelman
Ann Steelman, Secretary